

ABSTRACT OF THE DISCLOSURE

A multiplexing/demultiplexing system has a multiplexor that includes a first plurality of optical switches having a plurality of outputs and a first plurality of optical delay elements coupled to the optical switches. A source of optical light is coupled to the delay elements, and an optical combiner is coupled to the plurality of outputs and a source of framing pulses. A demultiplexor includes a first and second splitter, and a threshold detector coupled to the first splitter. The demultiplexor further includes a second plurality of optical delay elements coupled to the threshold detector, and a second plurality of optical switches coupled to the second splitter and the second plurality of delay elements.